DRAFT

MS4 General Permit
Town of Branford 2021 Annual Report
Permit Number GSM 000068
January 1, 2021 – December 31, 2021
Primary MS4 Contact: John M. Hoefferle, PE – Town Engineer
203-315-0606 engineering@branford-ct.gov

This report documents the Town of Branford's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2021 to December 31, 2021.

I.1 INTRODUCTION

The Annual Report describes the status of compliance with the 2017 CTDEEP General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s). The Town has the Permit Number GSM 000068. The report includes an assessment of the identified best management practices (BMPs) in the Stormwater Management Plan (SWMP) and the progress towards achieving the implementation dates and measureable goals for each of the Minimum Control Measures. The report also includes stormwater monitoring data results for samples collected in 2021.

The six minimum control measures included:

1. Public Education and Outreach
2. Public Involvment / Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention / Good Housekeeping

This report documents the Town's efforts to comply with the 2017 General Permit to the maximum extent practicable (MEP) for the period between January 1, 2021 to December 21, 2021 with updates on tasks to be completed in fiscal year 2022 ending in June 2022.

I.2 TOWN INFORMATION

The Town of Branford covers an area of approximately 28.0 square miles and is home to approximately 28,026 residents according to the 2010 Census. Approximately 20 square miles of the Town is classified as Urbanized Area (UA) according to the 2010 Census. Approximately 6.0 square miles of the Town is comprised of waterbodies and watercourses. An outfall map that included urbanized area is included in Appendix A.

Sub regional drainage basins and major watercourses include Branford River, Farm River and South Central Shoreline. In addition, there are several significant lakes and ponds within the town including the Branford Supply Ponds and Linsley Pond.

The Town of Branford has Representative Town Meeting form of government, which is led by the First Selectman. The Department of Public Works is responsible for roads and parking lots. The General Government Buildings is responsible for buildings. Parks and Recreation is responsible for parks. The Board of Education is responsible for their facilities. Several comimissions within the Town have jurisdicition over development and include the following:

- Inland Wetlands and Natural Resources Department
- Planning & Zoning Department

I.3 STORMWATER MONITORING

The 2017 General Permit requires towns to conduct wet weather screening of outfalls that discharge to impaired waters, beginning July 1, 2018. At least fifty percent (50%) of these outfalls shall be screened by July 1, 2020, and one hundred percent (100%) of the outfalls shall be screened by July 1, 2022. Outfalls will require follow-up investigation if the results are greater than the parameters listed in the General Permit. The six outfalls with the highest contribution of any of the pollutants of concern will be determined by July 1, 2021. These six priority outfalls will be monitored annually.

The Town sampled six outfalls that discharge to impaired waters in 2021.

Part I: Summary of Minimum Control Measure Activities

1. Public Education and Outreach

Under the General Permit Section 6(a)(1), the Town is required to "implement a public education program to distribute educational materials to the permittee's community or conduct equivalent outreach activities about the sources and impacts of stormwater discharges on waterbodies and the steps that the publc can take to reduce pollutants in stormwater runoff." The following BMPs were selected by the Town to address the Public Education and Outreach minimum control measure of the General Permit (Section 6(a)(1)/page 19):

1.1 BMP Summary

BMP	Activities in current reporting period	Status	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	•Continue to display handouts in Town Hall. •Display and distribute stormwater info at annual Branford Fesitival and Arbor Day. •The SWMP and links to stormwater websites/fact sheets are posted on the Town website. •Pet waste flier handed out with dog licenses.	Complete	Information available through Brochure/Fact Sheets at Town Hall and Website.	General Public (approx. 400)	Information available through Brochure/Fact Sheets at Town Hall and Website.	Solid Waste Manager, Town Engineer	
1-2 Address education/ outreach for pollutants of concern	Ongoing education and outreach targeting pollutants of concern.	Complete	Information available through Brochure/Fact Sheets at Town Hall and Website.	General Public (approx. 400)	Provide residents with educational events and information about water quality and stormwater pollutants.	Solid Waste Manager, Town Engineer	
1-3 Septic System Maintenance	The Town runs a low cost pump out service for non-sewered areas of town and also provides information to the health district if inspections of systems show problems. Regional solar powered pump out boat services by ESDHD.	Complete	Information available through Brochure/Fact Sheets at Town Hall and Website.	General Public (approx. 400)	Pump septic tanks as needed.	East Shore District Health Department	The pump out program is ongoing. The health department is working on a system to track all septic system pump outs including private vendors.

1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.

The Town will continue to display brochures/fact sheets at the Town Hall and at the annual Branford Festival.
The links to stormwater information online will be updated as new materials becomes available.
The information in the printed and online fact sheets will be updated when new information becomes available.
Dog waste receptacles are located in public parks. Possible partnership with condo associations to provide dog waste receptacles and 1-year supply of bags to reduce roadside polluting.
Outreach to educate the public on the effects of bacteria in waterways through Annual Litter Day/Earth Day Event hosted by the Branford Land Trust and Branford River Project.
Town is currently working with Save the Sound to increase public awareness.
Annual mandatory dog licenses are sent with pet waste brochures.

2. Public Involvement/Participation

Under the General Permit Section 6(a)(2), the Town is required to "provide opportunities to engage their community to participate in the review and implementation of the premittee's Plan." Public participation benefits the program by increasing public support, including additional expertise and involving community groups/organizations. The following BMPs were selected by the Town to address the Public Involvement / Participation minimum control measure of the General Permit (Section 6(a)(2)/page 21):

2.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Location Posted**	**Additional details**
2-1 Final Stormwater Management Plan publicly available	Ongoing	Posted Stormwater Management Report online.	Post Stormwater Management Report online.	Town Engineer	Ongoing	https://www.branford-ct.gov/departments/engineering-department/town-hall-engineer-document-database	
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Ongoing/ In Progress	Post Annual Report online. This will be completed by 2/15/2022.	Post Annual Report online.	Town Engineer	2/15/2022	https://www.branford-ct.gov/departments/engineering-department/town-hall-engineer-document-database	
2-3 Brochures/factsheets at Town Hall.	Complete	Updated brochures/ factsheets. Continue to display in Town Hall.	Place Brochure/ Fact Sheets at Town Hall.	Town Engineer Inland Wetlands	Ongoing Beginning 7/1/2018	https://www.branford-ct.gov/departments/engineering-department/town-hall-engineer-document-database	

2.2 Describe any Public Involvement/Participation activities planned for the next year, if applicable.

Brochures/ Factsheets will remain posted at the Town Hall.

Next year's annual report will continue to be posted online.

3. Illicit Discharge Detection and Elimination

Under the General Permit Section 6(a)(3), the Town is required to develop a written Illicit Discharge Detection and Elimination (IDDE) program. The IDDE program is designed to "provide the legal authority to prohibit and eliminate illicit discharges to the MS4; find the source of any illicit discharges; eliminate those illicit discharges; and ensure ongoing screening and tracking to prevent and/or eliminate future illicit discharges." The following BMPs were selected by the Town to address the Illicit Discharge Detection and Elimination minimum control measure of the General Permit (Section 6(a)(3) and Appendix B/page 22):

3.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
3-1 Develop written IDDE program	Complete	The Town developed an IDDE program based on the IDDE program template from UCONN's CT NEMO. The IDDE program was completed in 2019. The report is complete except for the ordinance that is still under review.	Develop written plan of IDDE program.	Town Engineer, Inland Wetlands, DPW	Completed 4/25/2019	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Completed	Mapping forms setup to add unmapped outfalls.	Map and list all outfalls, collect attributes on newly discovered outfalls.	Town Engineer DPW	Comleted 7/1/2019	
3-3 Implement citizen reporting program	Complete	The Town receives complaints via online reporting to DPW. Calls are logged into this system.	Post point of contact phone number and Contact Us Form listed on the Town website.	Town Engineer DPW	Completed 7/1/2017	"Report an Issue" on Town Homepage
3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19)	In Progress	The Town wrote a Town Ordinance regarding non-stormwater discharges based on the template produced by UCONN's CT NEMO Program.	Write and implement a Town Ordinance.	Town Engineer DPW	Projected 7/1/2022	

3-5 Develop record keeping system for IDDE tracking	Complete	The Town receives compliants via online reporting to DPW and Fire Department. Calls are logged into this system.	Document IDDE findings in Annual Reports.	Town Engineer DPW	Completed 7/1/2018	
3-6 Address IDDE in areas with pollutants of concern	Ongoing/ In progress	IDDE program prioritizes areas with pollutants of concern. Work with East Shore District Health Department (ESDHD) to assess septic areas.	IDDE program will address priority areas with high levels of Bacteria.	Town Engineer ESDHD	Ongoing	The Town of Branford provides low-cost septic pump out program.

3.2 Describe any IDDE activities planned for the next year, if applicable.

The IDDE program was finalized in 2019 except for the ordinance, which is still under review. The writtern IDDE program will be updated as needed throughout the permit term. Updates will be included in the Annual Report.
IDDE program powerpoint presentation will be developed for annual training to key personnel in 2022.
Maintain master IDDE tracking spreadsheet and ensure all employees involved in IDDE program understand the logging process.
The town continues to collaborate with East Shore District Health Department to identify sewered areas within the Short Beach neighborhood.

3.3 Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring July 2017 through end of reporting period using the following table. Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

Location (Lat long/ street crossing /address and receiving water)	**Date and duration of occurrence**	**Discharge to MS4 or surface water**	**Estimated volume discharged**	**Known or suspected cause / Responsible party**	**Corrective measures planned and completed** (include dates)	**Sampling data** (if applicable)
44 Maltby Street	9/5/2020	No	51-100 gallons	Mechanical equipment failure	Pumped	N/A
75 Block Island Rd	10/28/2020	No	501-1000 gallons	Approved bypass	Pumped	N/A
102 Jerimoth Rd	12/13/2020	No	No overflow	Mechanical equipment failure	Pumped	N/A
81 Mountain Top Lane	9/18/2020	No	No overflow	Leaching out to lawn	Pumped	N/A

Seventh Avenue @ Seaview Avenue	10/16/2020	No	No overflow	Fluid spill from privately owned truck.	Placed oil absorbent sock and speedy dry.	N/A
Lanphier Road	12/7/2020	No	No overflow	Auto repair facility allowing oil to flow to catch basin.	Fire Chief/Marshal, DEEP, ZEO notified.	N/A

3.4 Provide a summary of actions taken to address septic failures using the table below.

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
ESDHD receives illicit discharge reports				Health Department

3.5 Briefly describe the method and effectiveness of said method used to track illicit discharge reports.

The DPW is responsible for tracking and responding to illicit discharge reports. The ESDHD is responsible for tracking septic records for the Town. The Town Engineering Department is responsible for tracking sanitary sewer records.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	252
Estimated or actual number of interconnections	Unknown
Outfall mapping complete	100%
Interconnection mapping complete	0% Ongoing- Mapping will be updated as information comes in.
System-wide mapping complete (detailed MS4 infrastructure)	85%
Outfall assessment and priority ranking	0%
Dry weather screening of all High and Low priority outfalls complete	100%

Catchment investigations complete	100% Outfalls with reported issues have been investigated
Estimated percentage of MS4 catchment area investigated	100%

3.7 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often it is given (minimum once per year).

In 2022 a consultant will be retained to provide annual training that covers identifying and reporting illicit discharges, latest permit updates, tasks completed and best management practices.

4. Construction Site Runoff Control

The Town shall "implement and enforce a program to control stormwater discharges (to its MS4) associated with land disturbance or development (including re-development) activities from sites with one acre or more of soil disturbance, whether considered individually or collectively as part of a larger plan." The program will be consistent with "the 2002 Guidelines for Soil Erosion and Sedimentation Control, as amended, the Connecticut Stormwater Quality Manual, and stormwater discharge permits issued by DEEP withing the municipal or institutional boundary pursuant to CGS 22a-430 and 22a-430b." The permittee will conduct site plan reviews, site inspections, and include procedures for public involvement. The Town has local regulations (shown in Table 4.1) that require construction runoff control measures.

Table 4.1 Stormwater Regulations

Regulations	Date	Erosion & Sediment Controls	Site Plan Review	Site Inspection and Enforcement
Zoning Regulations	2015	Section 6.10 Soil Erosion and Sediment Control	Section 9.5.E Formal Review	Section 6.10 Implementation Section 10.2 Enforcement
Subdivision Regulations	2013	Section 3.06 Erosion and Sedimentation Control	Section 5 Application Procedures	Section 5.01C Application Procedures Authorization
Inland Wetlands and Watercourse Regulations	2017	Section 7.6 Application Requirements	Section 7.8 Application Requirements	Section 14 Enforcement

The following BMPs were selected by the Town to address the Construction Site Stormwater Runoff Control minimum control measure of the General Permit (Section 6(a)(4)/page 25):

4.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Complete	Reviewed current town land use regulations to verify reference to specific documents for design of sedimentation and erosion control BMPs.	Upgrade and enforce land use regulations.	Town Planner, Inland Wetlands Enforcement Officer (IWEO), Zoning Enforcement Officer (ZEO)	Completed 7/1/2019	See regulations listed in Table 4.1

4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Complete	Mult-department site plan review meetings occur monthly.	Continue site plan review with peers.	Town Planner	Ongoing	See regulations listed in Table 4.1
4-3 Review site plans for stormwater quality concerns (Ongoing)	Complete	Conducted site plan reviews.	Continue site plan review according to regulations.	Town Planner IWEO	Ongoing	See regulations listed in Table 4.1
4-4 Conduct site inspections (Ongoing)	Complete	Zoning Enforcement Officer (ZEO) and Inland Wetlands Enforcement Officer (IWEO) conduct regulat site inspections.	ZEO and IWEO conduct site inspections.	ZEO and IWEO	Ongoing	See regulations listed in Table 4.1
4-5 Implement procedure to allow public comment on site development (Ongoing)	Complete	The Town utilizes their government structure for processing information submitted by the public for receipt and consideration. Special Excepetions have public hearing requirements.	Public comments are forwarded to the appropriate Department.	ZEO, IWEO and DPW	Ongoing	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Complete	Continue notifying construction site developers and operators of requirements for registration.	Communicate to developers about DEEP construction stormwater permit through permitting process.	Town Planner	Ongoing	Stormwater Pollution Control Plans (SPCP) as required by CTDEEP.

4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.

The Zoning Commission and Town Engineer will continue to review site plans in accordance with the various town regulations.
Interdepartmental coordination will be continued.
The ZEO and IWEO will continue to conduct site inspections.
The Town Departments will continue to communicate to developers about DEEP construction stormwater permit through permitting process. Develop handout for procedures for permitting requirements.
Handout for DEEP permitting requirements has been developed and will be included in IW and PZ permits and/or applications.

5. Post-construction Stormwater Management

The Town shall require developers to "consider the use of low impact development (LID) and runoff reduction site planning and development practices prior to the consideration of other practices in the permittee's land use regulations, guidance or construction project requirements to meet or exeed those LID and runoff reduction practices identified in the Stormwater Quality Manual."

The Town currently has the following procedures for the enforcement of the stormwater regulations:

Zoning Regulations
February 1, 2015
Section 6.9 Drainage and Stormwater Control

Subdivision Regulations
February 1, 2013
Section 4.06 Storm Drainage

Inland Wetland and Watercourse Regulations
February 17, 2017
Section 14 Enforcement

The following BMPs were selected by the town to address the Post-Construction Stormwater Management minimum control measure of the General Permit (Section 6(a)(5)/page 27):

5.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Ongoing/ In Progress	Continue procedures for addressing post-construction BMPs including projects with 1 to 5 acres in disturbance.	Update regulations	Town Planner, IWEO	Projected 7/1/2022	Update Regulations.

5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Ongoing/ In Progress	Enforce LID/ runoff reduction regulations through site plan review.	Development and redevelopment projects will include LID/ runoff reduction measures.	Town Planner, IWEO	In progress/ Projected 7/1/2022	
5-3 Identify retention and detention ponds in priority areas	Complete	Identify retention and detention ponds in priority areas.	Identify retention and detention pons in priority areas.	Planning & Zoning, IWEO, ZEO and DPW	Completed 1/1/2021	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Complete	Implementing long-term maintenance of stormwater basins and treatment structures through scheduled maintenance.	Inspect and maintain basins and structures in accordance with long-term plan.	Planning & Zoning, IWEO, ZEO and DPW	Completed 7/1/2021	Only ponds owned by the Town are maintained by the DPW
5-5 DCIA mapping	Complete	A Baseline DCIA map was developed. The map will be used to develop Retrofit Program.	Update DCIA mapping.	Town Engineer	Completed 7/1/2019	
5-6 Address post-construction issues in areas with pollutants of concern	Ongoing	Inspect areas with pollutants of concern.	Enforce construction BMPs.	ZEO, IWEO DPW	Ongoing	

5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.

Development and redevelopment projects will include LID/ runoff reduction measures.
Inland Wetlands, Planning & Zoning, Engineering Dept. and Public Works Dept. to identify priority areas and develop maintenance program.
The DPW or property owners will maintain highest priority retention ponds.

5.3 Post-Construction Stormwater Management reporting metrics

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/post-construction.htm. Scroll down to the DCIA section.

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	625.32 acres
DCIA disconnected (redevelopment plus retrofits)	In progress
Retrofit projects completed	7
DCIA disconnected	6.25 acres
Estimated cost of retrofits	Unknown
Detention or retention ponds identified	6

5.4 Briefly describe the method to be used to determine baseline DCIA.

The Town utilized method 2 as developed by CT NEMO: Method 2 involves using the equations on UConn NEMO's website to estimate DCIA based on the development density in each basin.

6. Pollution Prevention/Good Housekeeping

Under the General Permit Section 6(a)(6), the Town shall "implement an operations and maintenance program for permittee-owned or-operated MS4s that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned or- operated MS4s." The following BMPs were selected by the town to address the Pollution Prevention/ Good Housekeeping minimum control measure of the General Permit (Section 6(a)(6)/ page 31):

6.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
6-1 Develop/implement formal employee training program (Ongoing)	Complete	Powerpoint presentation will be developed for training. Consultant will be retained for annual training.	Implement annual training meetings.	Town Engineer	Ongoing	
6-2 Implement MS4 property and operations maintenance (Ongoing)	Ongoing	Review current operation and maintenance procedures. Town parks have optimal fertilizer application, pet waste programs and scheduled trash collection. DPW has procedures for vehicle maintenance.	Update and implement MS4 operation and maintenance procedures.	Parks and Rec DPW	Ongoing	Employees are trained in spill response and kits are available where products are stores. Plastic bags are provided at parks for pet waste.
6-3 Implement coordination with interconnected MS4s	Not Started	This has not been started.	Coordinate with interconnected MS4s.	Town Engineer DPW	Not specified	The Town is awaiting information from DOT.
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not Started	Develop program to control other sources of pollutants. This has not been started yet.	Develop and implement program to control other sources of pollutants.	Town Engineer DPW	Not specified	
6-5 Evaluate additional measures for discharges to impaired waters*	Ongoing	Conduct preventative maintenance and fund retrofits to reduce pollutants to impaired water bodies.	Evaluate additional measures for discharges to impaired waters.	Town Engineer DPW	Ongoing	The Town considers pavement reduction in their pavement and parking lot management programs.

6-6 Track projects that disconnect DCIA (Ongoing)	Ongoing	Research past projects for DCIA disconnections. Track projects that disconnect DCIA.	Report projects that disconnect DCIA in annual reports.	Planning & Zoning, Inland Wetlands, Town Engineer	Ongoing	
6-7 Implement infrastructure repair/rehab program (Due 7/1/21)	Ongoing	Program for repairing and rehabilitating the MS4 infrastructure in a timely manner has not been started.	Implement infrastructure repair/ rehab program	DPW	Ongoing	Structures are repaired or replaced during roadway rehab or on an as-needed basis.
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20)	Ongoing	Develop plan to identify/ prioritize retrofit projects has been started.	Report of identified/ prioritized retrofit projects.	Town Engineer DPW	Ongoing	Town projects consider retrofits/BMPs; recent collaboration with UCONN Stormwater Corps identified retrofit opportunities.
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22)	Ongoing	Track projects that disconnect DCIA, and include in annual report has not been started.	Implement retrofit projects.	Town Engineer DPW	Projected 7/1/2022	Projects identified will be implemented where appropriate and funding is available.
6-10 Develop/implement street sweeping program (Ongoing)	Complete/ Ongoing	Street sweeping included over 42 miles of streets municipal parking lots.	Street sweeps are conducted annually.	DPW	Ongoing	
6-11 Develop/implement catch basin cleaning program (Ongoing)	Complete/ Ongoing	Continue Catch Basin Maintenance Program.	Catch basins are cleaned in accordance with the Program.	DPW	Ongoing	Catch Basins are cleaned annually.
6-12 Develop/implement snow management practices (Due 7/1/18)	Complete	Developed and implemented standard operating practices (SOP) for snow management policy.	Implement standard snow management SOP policy	DPW	Ongoing	Created Snow Removal and De-Icing Program on 11/14/2018.

6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.

Continue to conduct Street Sweeping Program, Catch Basin Cleaning Program and standard operating practices for snow management.

Continue to develop list of projects and funding opportunities to reduce DCIA.

Continue following operation and maintenance procedures.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes
Street sweeping	
Curb miles swept	53.66 miles
Volume (or mass) of material collected	140,454 lbs
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	Unknown
Total catch basins town- (or institution-) wide	3,000
Catch basins inspected	396
Catch basins cleaned	1,435
Volume (or mass) of material removed from all catch basins	99,206 lbs
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Coarse sand, Coarse salt, and Treated salt
Total amount of each deicing material applied	179.28 tons straight salt
Type(s) of deicing equipment used	Dump Truck – 4 season body, Salt Spreaders, Plows
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	3,440 miles
Snow disposal location	N/A
Staff training provided on application methods & equipment	11/2020
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	Unknown
Reduction in turf area (since start of permit)	Unknown

Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	Undetermined
Cost of mitigation actions/retrofits	N/A

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program.
This will consist of inspecting and if cleaning catch basins on a regularly scheduled basis. The Town will use the following criteria for inspecting and cleaning their catch basins: • The Town, at minimum, will annually evaluate, and if necessary, clean catch basins and other stormwater structures that accumulate sediment. Typically, one quarter of the catch basins in Town are cleaned each year to prevent having to clean subsurface storm sewer pipe segments between structures. The Town staggers the catch basin cleaning, so that all the catch basins are cleaned every four years. • Priority areas will be established to maximize the effectiveness of the Town's available resources for the routing inspections. These priority areas will be developed using the town's knowledge of problem areas, where sediment/debris has been known to accumalte in higher quantities. Geographical location, climate, traffic patterns and vertical sag locations may also be factors in determining priority areas. The Town will evaluate roads in the immediate vicinity of watercourse and waterbodies, and the Town will implement additional catch basins cleanings as needed.

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. (Due 7/1/20)
The Retrofit Plan was drafted and is currently in review to be finalized by 7/1/2022. The plan focuses on low impact development projects that can be implemented in different types of areas: low to medium density residential, high density industrial, commercial and residential, and roadways. Potential projects on Town owned land will be prioritized over commercial and residential projects because the Town has the power to make changes to their own property. Transfer Station is prioritized for retrofit projects to reduce nutrient loads. Foote Park has been prioritized to implement tree filters and rain gardens to treat roadway and parking lot runoff. The private Amazon development has been tasked with implementing detention and retention systems in their design; this will contribute 6.8 acres of disconnection. The total DCIA to be disconnected upon completion of each project will be included in the final report.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years. (Due 7/1/22)
The program will continue to identify and prioritize projects to achieve a goal of 1% DCIA disconnection in future years.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. This data is available on the MS4 map viewer: http://s.uconn.edu/ctms4map.

Nitrogen/ Phosphorus ☒ Bacteria ☒ Mercury ☐ Other Pollutant of Concern ☒

1.2 Describe program status

Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.

MS4s that discharge to impaired streams shall be monitored. Screening of outfalls that discharge to impaired waters shall begin in 2019. The Town plans to sample 8 outfalls in 2019. The outfalls were not monitored during this period.

According to the 2016 Intergrated Water Quailty Report, there are two impaired ponds and four impaired estuaries. Linsley Pond has a total maxium daily load (TMDL) for Phosphorus. The Branford Supply Pond does not have a TMDL. Stormwater outfalls do not discharge to the ponds; therefore, stormwater monitoring is not required for the impaired ponds.

The four estuaries listed in Table 7.1 below have TMDLs for Bacteria. The impairments to these estuaries are described in "Estuary 8: Branford/East Haven" Report. The outfalls directly discharging to these estuaries will be monitored.

The Town of Branford began screening the outfalls that discharge to impaired waters in 2019. The outfalls that discharge directly to the impaired estuaries will be screened starting with the Inner Branford Harbor. See Figure 2 in Appendix A for a map of the outfall locations screened as per the schedule below. The Intergrated Water Quailty Report is published every two years. The monitoring schedule will be updated if impaired waters change.

Wet and dry weather sampling is expected to be completed by July 1, 2022. Sampling will be included in the final report.

Table 7.1 Impaired Waters

Waterbody	Waterbody ID	Impaired Designated Use	Pollutant of Concern
Linsley Pond	CT5111-09-1-L2_01	Habitat for Fish, Other Aquatic Life and Wildlife, Recreation	Nitrogen and Phosphorus
Branford Supply Pond	CT5111-09-2-L3_01	Habitat for Fish, Other Aquatic Life and Wildlife	Other Pollutant of Concern (Monitor Turbidity)
Inner Branford Harbor	CT-C1_009-SB	Shellfish Harvest	Bacteria
Stony Creek (East)	CT-C2_011	Shellfish Harvest	Bacteria
Stony Creek (West)	CT-C2_012	Shellfish Harvest	Bacteria
Indian Neck	CT-C2_013	Shellfish Harvest	Bacteria

Table 7.2 Stormwater Outfall Monitoring Dates	
Target Date	**Measureable Goal/ Activity**
Completed 6/13/2019	Screening Outfalls: 140, 141, 143, 15, 18, 14, 17 & 169
April 1, 2020	Screening Outfalls: 19, 21, 22, 29, 40, 46, 47 &48 Follow up Investigation on outfalls with high pollutant concentrations.
July 1, 2020	Screening Outfalls: 49, 50, 51, 52, 126, 248 & 249 Follow up Investigation on outfalls with high pollutant concentrations.
July 1, 2021 July 1, 2022	Annually monitor the six priority outfalls.

2. Screening data for outfalls to impaired waterbodies (Section 6(i)(1) / page 41)

2.1 Screening data

Complete the table below to report data for any wet weather sampling completed for MS4 outfalls that discharge directly to a stormwater impaired waterbody during the reporting period. For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. **You may also attach an excel spreadsheet with the same data rather than copying it into this table**. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	**Latitude / Longitude**	**Sample date**	**Parameter** (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	**Results**	**Name of Laboratory (if used)**	**Follow-up required? ***
19		3/13/2020	Bacteria	-Enterocci Bacteria, 860/100 mls -Fecal Coliforms, <10/100 mls	Phoenix	Yes
46		3/13/2020	Bacteria	-Enterocci Bacteria, 110/100 mls -Fecal Coliforms, 10/100 mls	Phoenix	Yes
29		3/13/2020	Bacteria	-Enterocci Bacteria, 1610/100 mls	Phoenix	Yes

				-Fecal Coliforms, 73/100 mls		
248		3/13/2020	Bacteria	-Enterocci Bacteria, 228/100 mls -Fecal Coliforms, 10/100 mls	Phoenix	Yes
249		3/13/2020	Bacteria	-Enterocci Bacteria, 309/100 mls -Fecal Coliforms, 767/100 mls	Phoenix	Yes
52		3/13/2020	Bacteria	-Enterocci Bacteria, <10/100 mls -Fecal Coliforms, 20/100 mls	Phoenix	Yes

Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	• E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others • Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	• Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB • Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

The six outfalls sampled in 2020 had concentrations of Enterocci and Fecal Coliform greater than the allowable limits stated in the 2007 General Permit and shown in Table 7.4. Follow-up investigations will be conducted on the watersheds contributing to these outfalls.

Table 7.4 Stormwater Monitoring Requirements

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	• Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB • Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

3. Follow-up investigations (Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall ID	Status of drainage area investigation	Control measure to address impairment
DRN 065	Investigated for blue tainted water.	Town will continue to monitor. Implement waste pickup measures to prevent suspended solids from human activity.
DRN066	Invesitgated for blue tainted water.	Town will continue to monitor. Implement waste pickup measures to prevent suspended solids from human activity.
DRN095	Investigated for sheen on water. Multiple water bodies flow into outfall, which can cause the abundance of nutrients creating the sheen on the water.	Town will continue to monitor.
DRN118	Investigated for slightly dirty flow. Outfall is located near Branford Fire Department.	Town will continue to monitor. Implement training on good housekeeping.
DRN174	Investigated for white foam.	Town will continue to monitor for amount of white foam and test for phosphorus levels.
DRN233	Investigated for white foam.	Town will continue to monitor for amount of white foam and test for phosphorus levels.

4. Prioritized outfall monitoring (Section 6(i)(1)(D) / page 43)

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)

Part III: Additional IDDE Program Data

1. Assessment and Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations).

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank

2. Outfall and Interconnection Screening and Sampling data (Appendix B (A)(7)(d) / page 7)

2.1 Dry weather screening and sampling data from outfalls and interconnections

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken

2.2 Wet weather sample and inspection data

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern

1. Catchment Investigation data (Appendix B (A)(7)(e) / page 9)

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

Outfall ID	Receiving Water	System Vulnerability Factors

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Key Junction Manhole ID	Latitude / Longitude	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants

3.3 Wet weather investigation outfall sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants

3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure

Discharge location	Source location	Discharge description	Method of discovery	Date of discovery	Date of elimination	Mitigation or enforcement action	Estimated volume of flow removed

Part IV: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."	
Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name: James B. Cosgrove, First Selectman	Print name: John M. Hoefferle, PE, CFM, Town Engineer
Signature / Date:	Signature / Date:
Email: jcosgrove@branford-ct.gov	Email: jhoefferle@branford-ct.gov